



**Quantum**  
SERIES EXCAVATORS®

# 4300

## ROADBUILDER

SPECIFICATIONS

**94,000 lbs. (42 638 kg) Operating Weight**  
With Thumb, Quick Coupler and Guarding

**83,304 lbs. (37 786 kg) Operating Weight**  
Without Thumb, Quick Coupler and Guarding

Machine Shown With Optional Equipment

**Link-Belt**  
FORESTRY EQUIPMENT

# 4300 Quantum Roadbuilder Specifications

## ENGINE

Cummins M11-C265 turbocharged, water cooled, 4-cycle diesel, 6 cylinder, 661 CID (10 800 cc), 4.92" (125 mm) bore x 5.79" (147 mm) stroke.  
 SAE net horsepower ..... 240 HP (186 kW) @ 1,700 rpm  
 Maximum torque ..... 900 ft.-lbs. (124.5 kg-m or 1 178 N-m) @ 1,300 rpm  
 Starter ..... Electric, 24V, 4.5 kW  
 Alternator ..... 70 amp  
 Air cleaner ..... Double element  
 Governor ..... Variable speed, mechanical

## HYDRAULIC SYSTEM

Two variable displacement axial piston pumps, one gear pump for pilot controls and one gear pump for grapple rotation and open/close or thumb operation, with Link-Belt Intelligent Quantum (IQ) Control. Link-Belt IQ Control includes: four selectable working modes, free swing, power up mode, boom priority mode, selectable cushion attachment control, and three safety lockout switches including gate lock.

### Hydraulic Pumps

Two variable volume piston pumps provide power for attachment, swing and travel.  
 Maximum flow ..... 2 x 71 gpm (2 x 269 l/min)  
 Pilot pump max. flow ..... 7.4 gpm (27.9 l/min)  
 Rotate pump max. flow ..... 10 gpm (37.9 l/min)

### Relief Valve Settings

Boom up/arm/bucket/travel ..... 4,620 psi (325 kg/cm<sup>2</sup>)  
 in Power Up Mode ..... 5,050 psi (355 kg/cm<sup>2</sup>)  
 Swing circuit ..... 4,050 psi (285 kg/cm<sup>2</sup>)  
 Boom down circuit ..... 3,555 psi (250 kg/cm<sup>2</sup>)

### Hydraulic Cylinders – number of cylinders – bore x rod x stroke

Boom ..... 2 – 5.5" x 3.9" x 58.3" (140 mm x 100 mm x 1 480 mm)  
 Arm ..... 1 – 6.3" x 4.3" x 68.2" (160 mm x 110 mm x 1 733 mm)  
 Bucket ..... 1 – 5.5" x 3.7" x 50.2" (140 mm x 95 mm x 1 275 mm)

### Oil Filtration

Nephron filter ..... 1 micron  
 Return, pilot, drain filter ..... 10 micron  
 Suction filter ..... 105 micron

**Control Valve** One 4-spool valve and one 5-spool valve with auxiliary spool.

## CAB AND CONTROLS

Cab mounted on 6 fluid filled mountings. Features include a safety glass front window and LEXAN® MARGARD™ rear and side windows, reclining/sliding cloth upholstered suspension seat with headrest and armrests, heater, circulating fan, AM/FM radio, cigarette lighter, pop-up skylight window, and intermittent wiper with washer. Front window slides upward for storage and the lower front window is removable. Control levers are located in 4-position tilting control consoles. Reliable soft-touch switches. Easy-to-read illuminated LCD service monitor keeps operator in touch with critical machine functions.

## SWING

Planetary reduction powered by axial piston motor. Internal ring gear with grease cavity for swing pinion. Swing bearing is single-row, four-point contact ball bearing. Swing cushion valve and dual stage relief valves for smooth swing deceleration and stops. Mechanical disc swing brake.

Swing speed ..... 0 – 10.1 rpm  
 Swing torque ..... 73,709 ft.-lbs. (10 190 kg-m)

## UNDERCARRIAGE

X-style high-wide carbody is integrally welded for strength and durability. Grease cylinder track adjusters with shock absorbing springs. Heavy duty undercarriage with sealed track, lubricated rollers and idlers. 2-bar grouser track shoes.

Carrier rollers ..... 2 per side  
 Track rollers ..... 8 per side  
 Shoes ..... 49 per side  
 Shoe width ..... 27.5" (700 mm)  
 Ground pressure ..... 8.7 psi (.61 kg/cm<sup>2</sup>)  
 Ground pressure (guarded) ..... 9.8 psi (.69 kg/cm<sup>2</sup>)

## TRAVEL SYSTEM

Three-speed independent hydrostatic travel with compact axial piston motors for increased performance. Hydraulic motor powered output shaft coupled to a planetary reduction unit and track sprocket. All hydraulic components mounted within the width of side frame. Travel speeds selected by floor mounted foot switch.

**Automatic Downshift:** When operating in difficult travel conditions or on slopes, travel motor automatically downshifts from high speed to mid-range speed for increased tractive effort. Machine will automatically return to high speed after traveling out of difficult terrain.

**Single Pedal Travel:** Engage both tracks simultaneously.

Max. travel speed ..... 1.2/1.8/3.1 mph (1.9/2.9/ 5.0 km/h)  
 Tractive effort ..... 64,936 lbs. (29 449 kg)  
 Gradeability ..... 70%

Spring applied, hydraulically released disc parking brake built into each motor. Each travel motor equipped with counterbalance valve to prevent over-speeding down an incline and dual stage reliefs for smooth starts and stops.

## LUBRICANT & COOLANT CAPACITY

Hydraulic tank ..... 40.2 gal. (152 liters)  
 Hydraulic system ..... 84.5 gal. (320 liters)  
 Final drive (per side) ..... 2.2 gal. (8.5 liters)  
 Swing drive ..... 3.4 gal. (12.5 liters)  
 Engine ..... 9 gal. (34 liters)  
 Fuel tank ..... 153.3 gal. (580 liters)  
 Cooling system ..... 15 gal. (56.8 liters)

## ATTACHMENTS

### Available Attachments

- 21' 2" (6.45 m) Boom
- 10' 7" (3.23 m) Arm
- In Power Up Mode ..... Arm Digging Force – 31,467 lbs. (14 273 kg)
- In Power Up Mode ..... Bucket Digging Force – 42,990 lbs. (19 500 kg)

## DIMENSIONS

Tailswing radius ..... 11' 0" (3.35 m)  
 Ground clearance ..... 27.8" (.71 m)  
 Track length ..... 15' 11" (4.84 m)  
 Overall width w/27.5" (700 mm) shoes ..... 11' 11" (3.64 m)

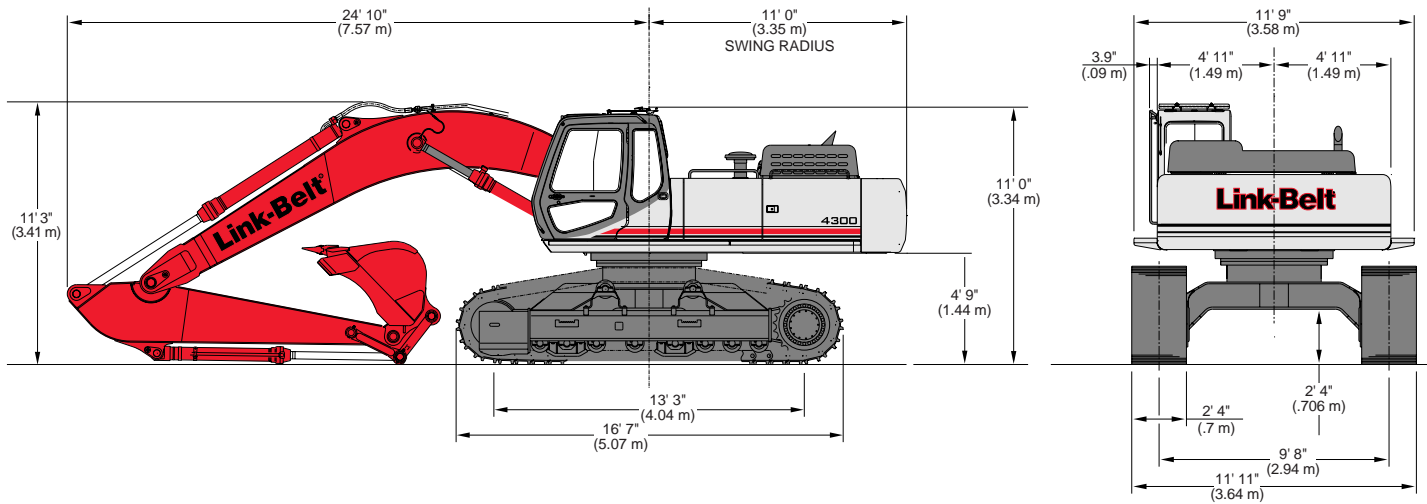
## OPERATING WEIGHT

Working weight with 27.5" (700 mm) shoes, 2-piece attachment and 2,643 lb. (1 198 kg) bucket ..... 83,304 lbs. (37 786 kg)  
 Working weight with HD guarding, quick attachment, thumb, and 27.5" (700 mm) shoes, 2-piece attachment and 2,643 lb. (1 198 kg) bucket ..... 94,000 lbs. (42 638 kg)

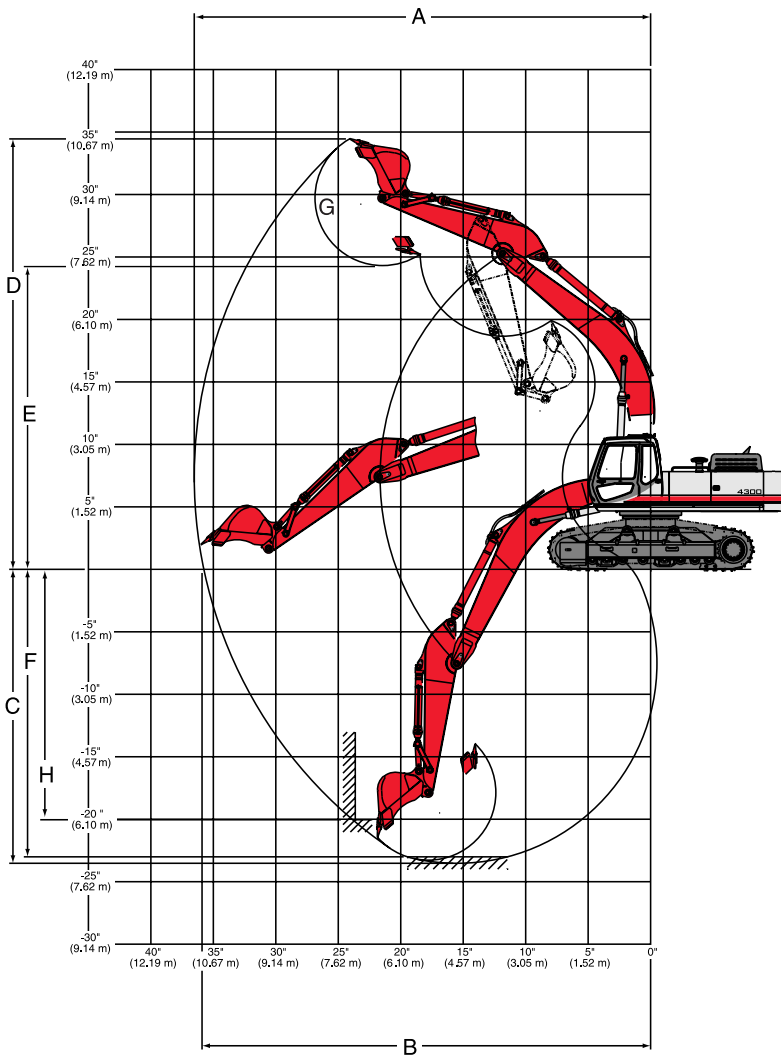
## STANDARD EQUIPMENT

- Cummins M11-C265 diesel engine
- 70 amp alternator
- Double element air filter
- 24-volt starting system, battery lighting system, sealed heavy duty electrical connectors
- Ether starting aid
- Intelligent Quantum (IQ) Control with manual backup system
- Self-diagnostic system
- Nephron filtration system
- Swing-out oil cooler
- Four selectable working modes
- Auto engine warm up
- Cushion attachment control
- Boom and arm holding valves
- Quick disconnects in hydraulic system for easy pressure checking
- Free swing control
- 3-speed hydrostatic travel
- Power up mode
- Boom priority mode
- Single pedal travel
- Travel alarm
- Spare accessory valve
- Sliding/reclining, suspension cloth upholstered seat with 4-position tilting console and sliding platform
- Illuminated LCD service monitor
- Heater, fan, seat belt, horn, dome light, AM/FM radio, digital clock, floor mat, cigarette lighter
- Safety glass front window with automatic lock and intermittent windshield wiper and washer, large LEXAN® rear/side windows
- Vandalism locks/guarding
- Hand grab rails both sides
- High-wide undercarriage
- 18,500 lbs. (8 391 kg) counterweight
- Auto idling system
- One-touch decelerator

## DIMENSIONS



## WORKING RANGES



	21' 2" (6.45 m) Boom
	10' 7" Arm 3.23 m
A Max. digging radius	36' 6" 11.13 m
B Max. digging radius @ ground level	35' 11" 10.94 m
C Max. digging depth	23' 6" 7.17 m
D Max. digging height	34' 5" 10.50 m
E Max. dumping height	28' 5" 8.65 m
F Digging depth - 8' (2.44 m) level bottom	23' 0" 7.01 m
G Bucket wrist angle	184.5°
H Max. vertical wall depth	20' 0" 6.10 m

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## BUCKETS

Bucket Type	Capacity	Width Outside Lip	Weight	# Teeth	Arm
					10' 7" (3.23 m)
ESCO STDP	1.25 cu. yd. (.96 m <sup>3</sup> )	30" (762 mm)	2,184 lb. (991 kg)	4	H
	1.50 cu. yd. (1.15 m <sup>3</sup> )	36" (914 mm)	2,397 lb. (1 087 kg)	4	H
	1.88 cu. yd. (1.44 m <sup>3</sup> )	42" (1 067 mm)	2,655 lb. (1 204 kg)	5	H
	2.12 cu. yd. (1.62 m <sup>3</sup> )	48" (1 219 mm)	2,828 lb. (1 283 kg)	5	M
	2.50 cu. yd. (1.91 m <sup>3</sup> )	54" (1 372 mm)	3,100 lb. (1 406 kg)	6	M
2.75 cu. yd. (2.10 m <sup>3</sup> )	60" (1 524 mm)	3,271 lb. (1 484 kg)	6	L	
ESCO HDP	1.25 cu. yd. (.96 m <sup>3</sup> )	30" (762 mm)	2,680 lb. (1 216 kg)	4	H
	1.50 cu. yd. (1.15 m <sup>3</sup> )	36" (914 mm)	2,894 lb. (1 313 kg)	4	H
	1.88 cu. yd. (1.44 m <sup>3</sup> )	42" (1 067 mm)	3,234 lb. (1 467 kg)	5	H
	2.12 cu. yd. (1.62 m <sup>3</sup> )	48" (1 219 mm)	3,474 lb. (1 576 kg)	5	M
	2.5 cu. yd. (1.91 m <sup>3</sup> )	54" (1 372 mm)	3,784 lb. (1 716 kg)	6	L
ESCO XDP	1.125 cu. yd. (.86 m <sup>3</sup> )	30" (762 mm)	3,082 lb. (1 398 kg)	4	H
	1.375 cu. yd. (1.05 m <sup>3</sup> )	36" (914 mm)	3,364 lb. (1 526 kg)	4	H
	1.75 cu. yd. (1.34 m <sup>3</sup> )	42" (1 067 mm)	3,722 lb. (1 688 kg)	5	H
	2.00 cu. yd. (1.53 m <sup>3</sup> )	48" (1 219 mm)	4,006 lb. (1 817 kg)	5	M
ESCO HDC	1.38 cu. yd. (1.06 m <sup>3</sup> )	39" (991 mm)	2,643 lb. (1 199 kg)	4	H
	1.63 cu. yd. (1.25 m <sup>3</sup> )	45" (1 143 mm)	2,988 lb. (1 355 kg)	5	H

### Approval Code For Arm/Bucket Combinations

H ..... Heavy material  
(up to 3,370 lbs./cu. yd.)

M ..... Medium material  
(up to 2,700 lbs./cu. yd.)

L ..... Light material  
(up to 2,020 lbs./cu. yd.)

N/A .... Not applicable

# Lifting Capacities

**10' 7" (3.23 m) ARM EQUIPPED WITH 2,370 LB. (1 075 KG) BUCKET POWER UP MODE APPLIED**

Bucket Hook Height	Radius of Load												
	10' 0" (3.05 m)		15' 0" (4.57 m)		20' 0" (6.10 m)		25' 0" (7.62 m)		30' 0" (9.14 m)		Capacity at Max. Reach		
	End	Side	End	Side	End	Side	End	Side	End	Side	End	Side	
+25' 0" (7.62 m)	lbs.						12,000*	12,000*			6,600*	6,600*	
	kg.						5 440*	5 440*			2 990*	2 990*	
+20' 0" (6.10 m)	lbs.						13,200*	13,200*			6,500*	6,500*	
	kg.						5 980*	5 980*			2 940*	2 940*	
+15' 0" (4.57 m)	lbs.					16,400*	16,400*	14,200*	14,200*	12,700*	12,700*	6,600*	6,600*
	kg.					7 430*	7 430*	6 440*	6 440*	5 760*	5 760*	2 990*	2 990*
+10' 0" (3.05 m)	lbs.	25,800*	25,800*	26,800*	26,800*	19,100*	19,100*	15,700*	15,700*	13,600*	12,800*	6,800*	6,800*
	kg.	11 700*	11 700*	12 150*	12 150*	8 660*	8 660*	7 120*	7 120*	6 160*	5 800*	3 080*	3 080*
+5' 0" (1.52 m)	lbs.	14,100*	14,100*	31,700*	31,700*	21,800*	21,800*	17,000*	16,600*	14,200*	12,400*	7,400*	7,400*
	kg.	6 390*	6 390*	14 370*	14 370*	9 880*	9 880*	7 710*	7 520*	6 440*	5 620*	3 350*	3 350*
Ground	lbs.	19,300*	19,300*	32,800*	32,800*	23,400*	22,300*	18,000*	16,100*	14,500*	12,200*	8,200*	8,200*
Line	kg.	8 750*	8 750*	14 870*	14 870*	10 610*	10 110*	8 160*	7 300*	6 570*	5 530*	3 710*	3 710*
-5' 0" (1.52 m)	lbs.	25,900*	25,900*	32,300*	32,300*	23,500*	21,900*	18,100*	15,700*	14,200*	12,000*	9,500*	9,500*
	kg.	11 740*	11 740*	14 650*	14 650*	10 650*	9 930*	8 210*	7 120*	6 440*	5 440*	4 300*	4 300*
-10' 0" (3.05 m)	lbs.	36,500*	36,500*	30,200*	30,200*	22,400*	21,900*	17,100*	15,700*			11,800*	11,800*
	kg.	16 550*	16 550*	13 690*	13 690*	10 160*	9 930*	7 750*	7 120*			5 350*	5 350*
-15' 0" (4.57 m)	lbs.	35,800*	35,800*	25,800*	25,800*	19,100*	19,100*	13,300*	13,300*				
	kg.	16 230*	16 230*	11 700*	11 700*	8 660*	8 660*	6 030*	6 030*				
-20' 0" (6.10 m)	lbs.			17,200*	17,200*								
	kg.			7 800*	7 800*								
-25' 0" (7.62 m)	lbs.												
	kg.												

### Notes: Excavator lifting capacities

- Lifting capacities shown should not be exceeded. Weight of all lifting accessories must be deducted from the above lifting capacities.
- Lifting capacities are based on machine standing on firm, uniform supporting surface. User must make allowances for job conditions such as soft or uneven ground.
- Lifting capacities shown do not exceed 75% of minimum tipping loads or 87% of hydraulic capacities. Capacities marked with an asterisk (\*) are limited by hydraulic capacities.
- Least stable position is over the side.
- Lifting capacities are in compliance with SAE J1097. Operator should be fully acquainted with the Operator's Manual & Operating Safety Booklet, furnished by manufacturer before operating the machine.
- Capacities apply only to the machine as originally manufactured and normally equipped by LBX Company, LLC.